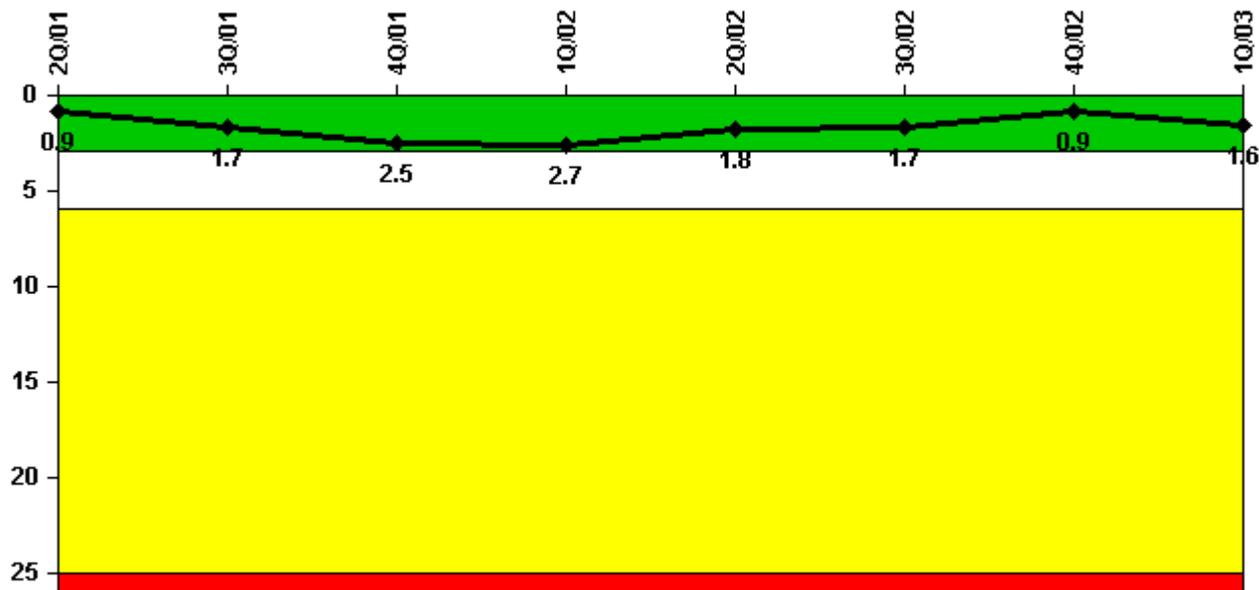


# Watts Bar 1

## 1Q/2003 Performance Indicators

Licensee's General Comments: none

### Unplanned Scrams per 7000 Critical Hrs



Thresholds: White > 3.0 Yellow > 6.0 Red > 25.0

### Notes

Unplanned Scrams per 7000 Critical Hrs	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Unplanned scrams	1.0	1.0	1.0	0	0	1.0	0	1.0
Critical hours	2152.5	1956.9	2180.9	1611.3	2060.8	2185.5	2209.0	2036.0
Indicator value	0.9	1.7	2.5	2.7	1.8	1.7	0.9	1.6

Licensee Comments: none

### Scrams with Loss of Normal Heat Removal



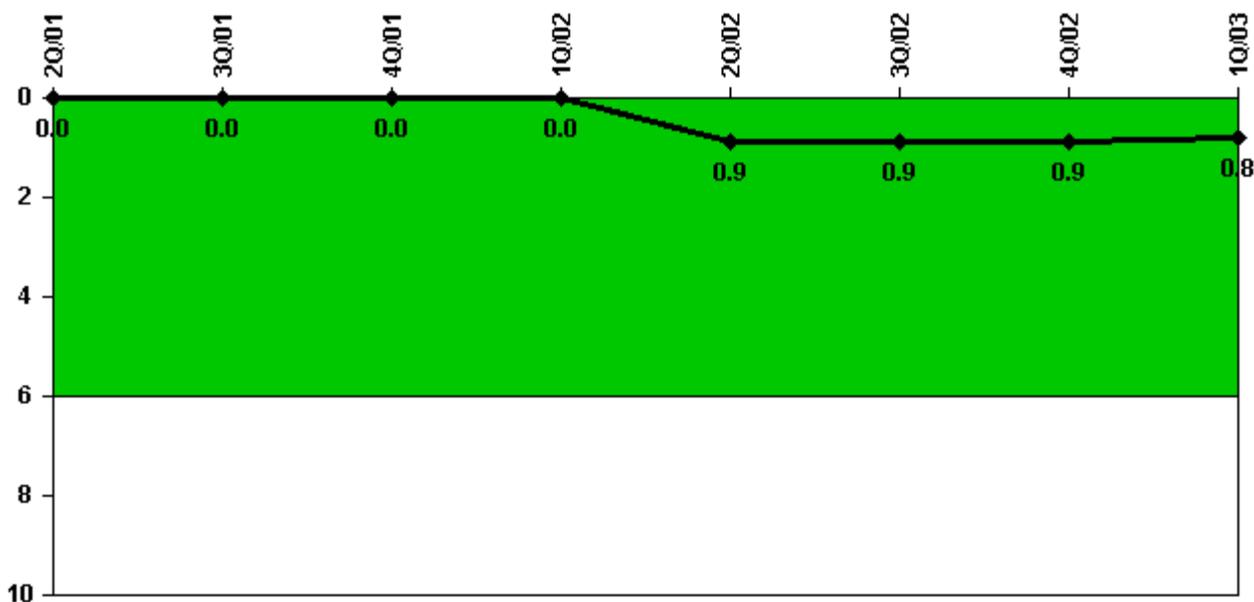
Thresholds: White > 2.0 Yellow > 10.0 Red > 20.0

#### Notes

Scrams with Loss of Normal Heat Removal	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Scrams	0	1.0	0	0	0	0	0	0
Indicator value	0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Licensee Comments: none

### Unplanned Power Changes per 7000 Critical Hrs



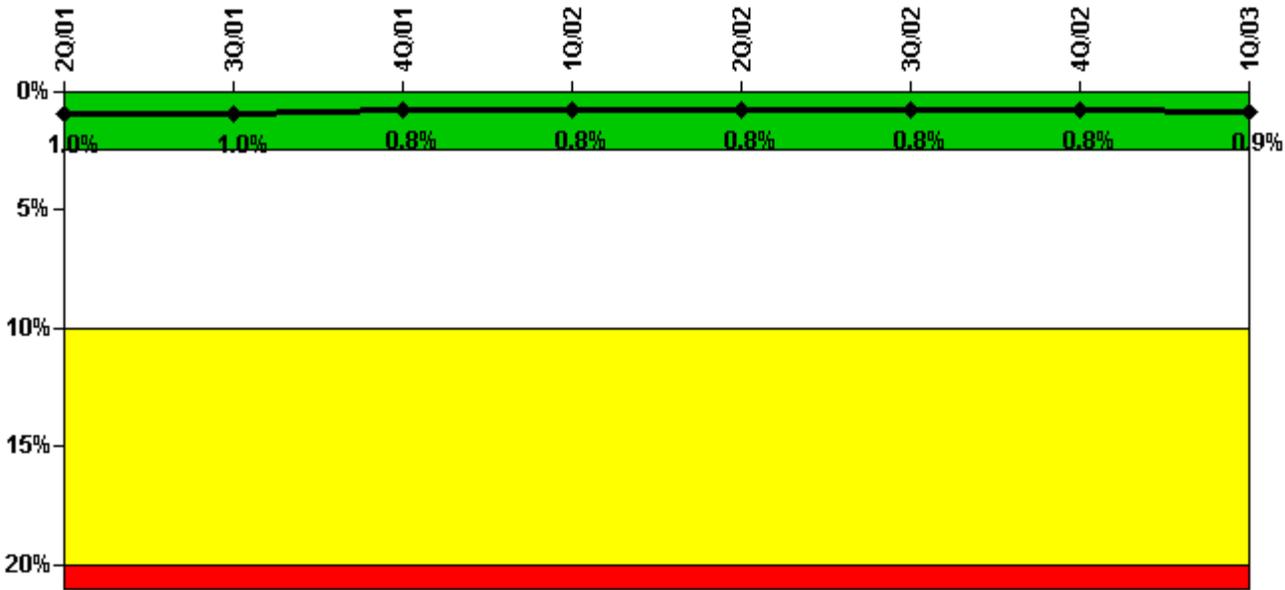
Thresholds: White > 6.0

#### Notes

Unplanned Power Changes per 7000 Critical Hrs	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Unplanned power changes	0	0	0	0	1.0	0	0	0
Critical hours	2152.5	1956.9	2180.9	1611.3	2060.8	2185.5	2209.0	2036.0
Indicator value	0	0	0	0	0.9	0.9	0.9	0.8

Licensee Comments: none

### Safety System Unavailability, Emergency AC Power, >2EDG



Thresholds: White > 2.5% Yellow > 10.0% Red > 20.0%

**Notes**

Safety System Unavailability, Emergency AC Power, >2EDG	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
<b>Train 1</b>								
Planned unavailable hours	30.21	2.03	14.73	2.14	4.55	1.05	7.75	37.72
Unplanned unavailable hours	8.52	0	0	0	0	0	0	0
Fault exposure hours	1.75	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1938.06	2183.00	2208.00	2209.00	2160.00
<b>Train 2</b>								
Planned unavailable hours	59.69	2.05	1.15	1.85	1.37	1.16	0.67	46.23
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2123.63	2209.00	1902.72	2183.00	2208.00	2209.00	2160.00
<b>Train 3</b>								
Planned unavailable hours	47.37	2.42	7.01	2.00	1.39	1.23	1.35	54.45
Unplanned unavailable hours	0	0	0	0	0	0	0	21.93
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	1938.06	2183.00	2208.00	2209.00	2160.00
<b>Train 4</b>								
Planned unavailable hours	40.30	4.88	9.20	6.45	0.62	2.48	1.00	80.63
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2123.63	2209.00	1902.72	2183.00	2208.00	2209.00	2160.00

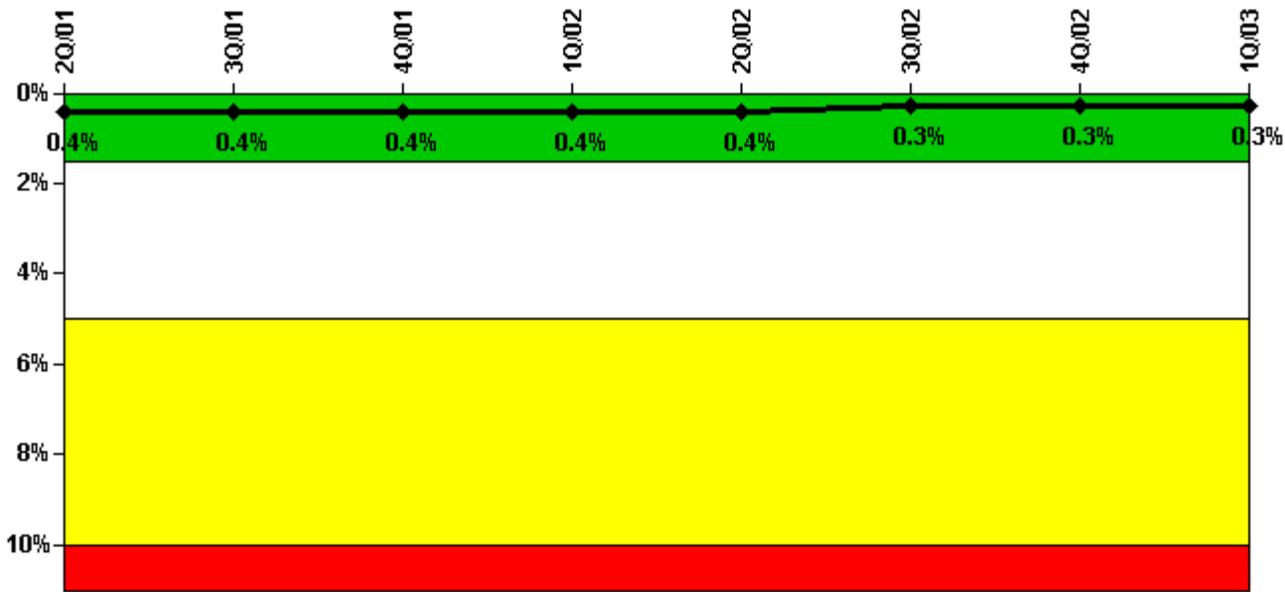
Indicator value	1.0%	1.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%

Licensee Comments:

1Q/03: Fault exposure hours are being calculated due to the loose contact wire discovered on relay ES2AY which prevented the 86LOR relay from toggling after an emergency start of Diesel Generator 2A-A. The last time that the contact function was verified to operate correctly was on September 27, 2002 at which time the diesel generator emergency started following a loss of off site power from the Watts Bar Hydroelectric Plant. An evaluation of the 86LOR functions determined that as long as the diesel was aligned for "unit" operation, which is the normal alignment, the diesel would have functioned as designed. The 86LOR normally removes voltage droop from the system in the event of an emergency start. With the diesel aligned for "parallel" operation, it is inconclusive as to whether the presence of voltage droop would have maintained the bus above the voltage load shedding trip setpoint. The fault exposure hours are being counted for the periods of time the diesel was started for monthly tests until the standby alignment was verified. This should fully encompass the time frame the diesel was aligned for parallel operation. Since the loose connection was discovered and corrected during a maintenance outage in February 2003 while the diesel generator was unavailable, no fault exposure hours were encountered for that month. SI Performance Date/Start Time/End Time/Fault Exposure Time/T2 Reported Time October 8, 2002/02:33/05:56/03:23/1:41.5 November 5, 2002/01:15/05:45/04:30/2:15.0 December 3, 2002/03:55/07:00/03:05/1:32.5 December 31, 2002/01:19/05:38/04:19/2:09.5 January 28, 2003/02:03/05:00/02:57/1:28.5 The total fault exposure hours for this deficiency was 18 hours and 14 minutes. Since it is unknown when the ES2AY relay connection failed, the reported man-hours are calculated to be the total hours divided by two or in this case, 9 hours and 7 minutes. Of that total, 7.64 fault exposure hours were reported in the Q4 2002 and 1.48 fault exposure hours were reported for the Q1 2003. This calculation methodology is in accordance with the guidance contained in NEI-99.02.

4Q/02: This change is for Q4 CY 2002. Fault exposure hours are being calculated due to the loose contact wire discovered on relay ES2AY which prevented the 86LOR relay from toggling after an emergency start of Diesel Generator 2A-A. The last time that the contact function was verified to operate correctly was on September 27, 2002 at which time the diesel generator emergency started following a loss of off site power from the Watts Bar Hydroelectric Plant. An evaluation of the 86LOR functions determined that as long as the diesel was aligned for "unit" operation, which is the normal alignment, the diesel would have functioned as designed. The 86LOR normally removes voltage droop from the system in the event of an emergency start. With the diesel aligned for "parallel" operation, it is inconclusive as to whether the presence of voltage droop would have maintained the bus above the voltage load shedding trip setpoint. The fault exposure hours are being counted for the periods of time the diesel was started for monthly tests until the standby alignment was verified. This should fully encompass the time frame the diesel was aligned for parallel operation. Since the loose connection was discovered and corrected during a maintenance outage in February 2003 while the diesel generator was unavailable, no fault exposure hours were encountered for that month. SI Performance Date/Start Time/End Time/Fault Exposure Time/T2 Reported Time October 8, 2002/02:33/05:56/03:23/1:41.5 November 5, 2002/01:15/05:45/04:30/2:15.0 December 3, 2002/03:55/07:00/03:05/1:32.5 December 31, 2002/01:19/05:38/04:19/2:09.5 January 28, 2003/02:03/05:00/02:57/1:28.5 The total fault exposure hours for this deficiency was 18 hours and 14 minutes. Since it is unknown when the ES2AY relay connection failed, the reported man-hours are calculated to be the total hours divided by two or in this case, 9 hours and 7 minutes. Of that total, 7.64 fault exposure hours were reported in the 4th Qtr of 2002 and 1.48 fault exposure hours were reported for the 1st quarter of 2003. This calculation methodology is in accordance with the guidance contained in NEI-99.02. This change does not affect the color of the indicator.

### Safety System Unavailability, High Pressure Injection System (HPSI)



Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, High Pressure Injection System (HPSI)	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
<b>Train 1</b>								
Planned unavailable hours	0.10	0.20	4.40	7.30	8.60	2.10	14.70	5.50
Unplanned unavailable hours	0	0.30	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2123.60	2209.00	1678.00	2099.70	2208.00	2209.00	2160.00
<b>Train 2</b>								
Planned unavailable hours	13.70	0.30	1.70	2.00	0.10	3.10	3.70	1.90
Unplanned unavailable hours	0	0.10	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2014.00	2209.00	1665.50	2087.30	2208.00	2209.00	2160.00
<b>Train 3</b>								
Planned unavailable hours	1.30	5.60	19.70	5.40	12.50	2.20	4.00	22.80
Unplanned unavailable hours	0	0.30	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2014.00	2209.00	1662.70	2087.30	2208.00	2209.00	2160.00
<b>Train 4</b>								
Planned unavailable hours	1.00	20.60	4.10	3.40	0.80	5.00	3.90	23.60
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0

Required hours	2183.00	2014.00	2209.00	1662.70	2087.30	2208.00	2209.00	2160.00
Indicator value	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%

Licensee Comments:

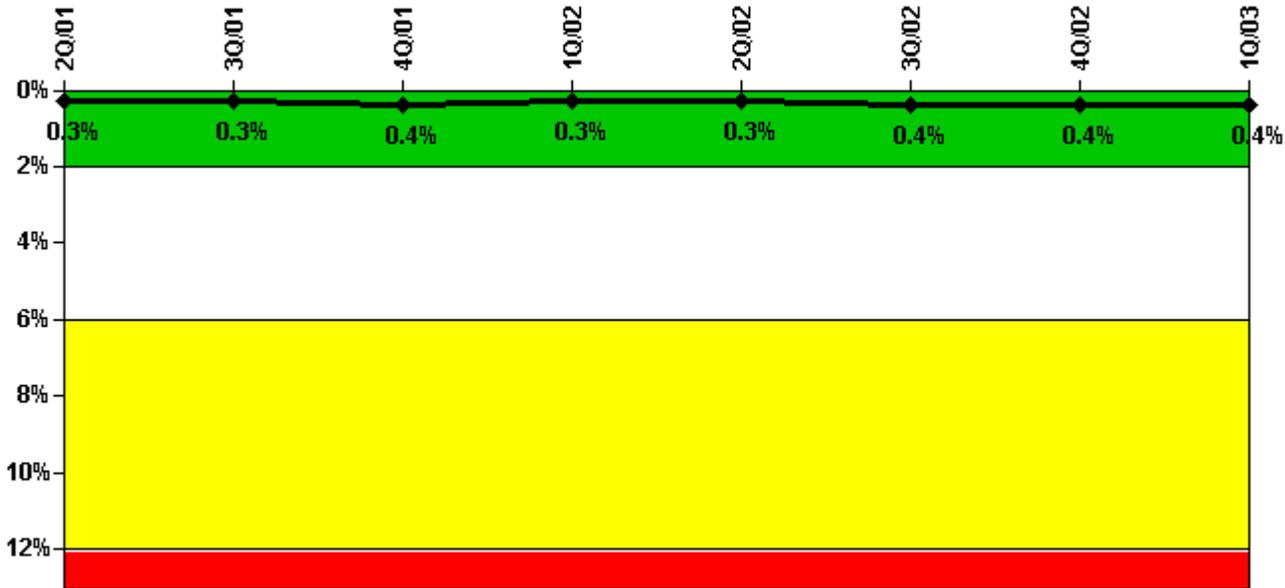
3Q/02: This change is for Q3 CY 2002. Unavailability data incorporates changes resulting from corrective actions for PER 02-017854-000. More specifically, these changes address safety system actuation testing as discussed in FAQ 290. This change does not affect the color of the indicator.

2Q/02: This change is for Q2 CY 2002. Unavailability data incorporates changes resulting from corrective actions for PER 02-017854-000. More specifically, these changes address safety system actuation testing as discussed in FAQ 290. This change does not affect the color of the indicator.

1Q/02: This change is for Q1 CY 2002. Unavailability data incorporates changes resulting from the corrective actions for PER 02-017854-000. More specifically, these changes address safety system actuation testing as discussed in FAQ 290. This change does not affect the color of the indicator.

4Q/01: This change is for Q4 CY 2001. Unavailability data incorporate changes resulting from the corrective actions for PER 02-017854-000. More specifically, these changes address safety system actuation testing as discussed in FAQ 290. This change does not affect the color of the indicator.

### Safety System Unavailability, Heat Removal System (AFW)



Thresholds: White > 2.0% Yellow > 6.0% Red > 12.0%

Notes

Safety System Unavailability, Heat Removal System (AFW)	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
<b>Train 1</b>								
Planned unavailable hours	0.02	3.70	25.85	3.38	8.97	1.90	3.18	12.55
Unplanned unavailable hours	0	0.90	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2014.00	2209.00	1680.80	2099.70	2208.00	2209.00	2160.00
<b>Train 2</b>								
Planned unavailable hours	29.40	8.00	13.56	2.38	0	11.20	3.44	8.18
Unplanned unavailable hours	0	1.10	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2014.00	2209.00	1680.80	2099.70	2208.00	2209.00	2160.00
<b>Train 3</b>								
Planned unavailable hours	0.70	2.00	8.04	4.07	0.03	11.80	0.65	13.82
Unplanned unavailable hours	0	0	0	0	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2014.00	2209.00	1662.60	2087.30	2208.00	2209.00	2160.00
<b>Indicator value</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>

## Licensee Comments:

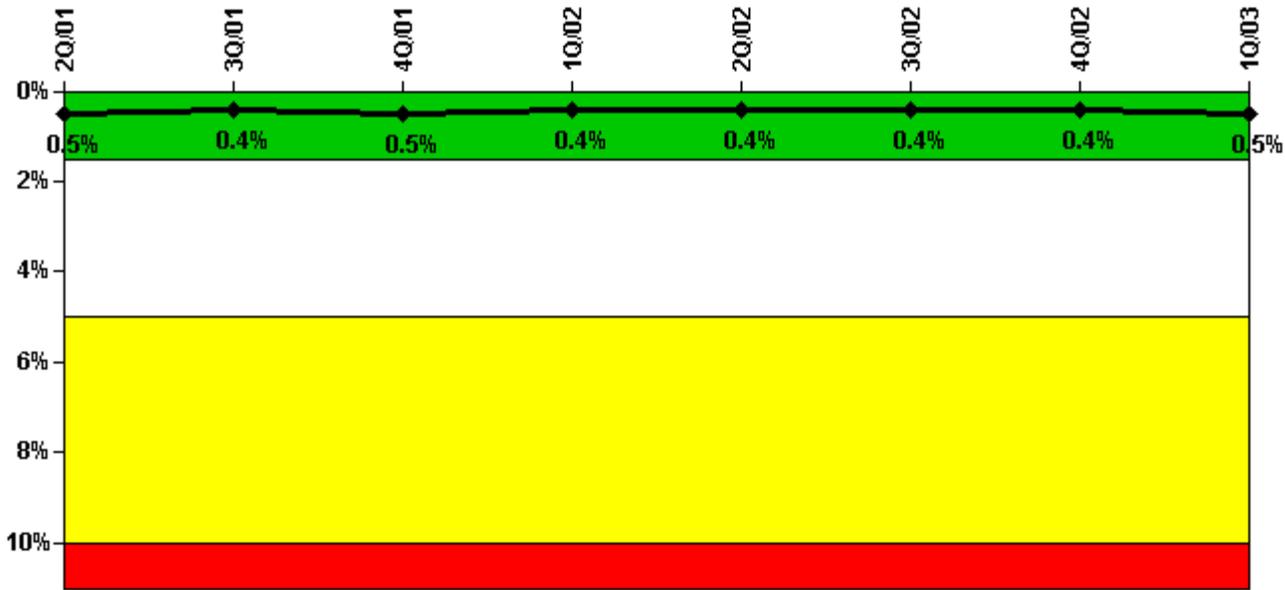
3Q/02: This change is for Q3 Cy 2002. Additional hours added due to safety system actuation testing (additional 1.58 hrs for Train 1 and 3.05 hrs for Train 2). PER 02-17854 This change does not affect the indicator color.

2Q/02: This change is for Q2 2002. Additional hours added due to safety system actuation testing (additional 8.47 hrs for Train 1) PER 02-17854. This change does not affect the indicator color.

1Q/02: This change is for Q1 2002. Additional hours added due to safety system actuation testing (additional 3.05 hrs for Train 1 and 1.75 hrs for Train 2) PER 02-17824 This change does not affect the indicator color.

4Q/01: This change is for Q4 CY2001. Additional hours added due to safety system actuation testing (additional 3.65 hrs. for Train 1 and 1.73 hrs for Train 2). PER 02-17854. This change does not affect the color of the indicator.

### Safety System Unavailability, Residual Heat Removal System



Thresholds: White > 1.5% Yellow > 5.0% Red > 10.0%

**Notes**

Safety System Unavailability, Residual Heat Removal System	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
<b>Train 1</b>								
Planned unavailable hours	2.35	2.30	31.47	5.24	10.49	3.43	5.67	50.35
Unplanned unavailable hours	0	0.30	0	0.03	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2091.40	2183.00	2208.00	2209.00	2160.00
<b>Train 2</b>								
Planned unavailable hours	2.90	2.20	30.63	5.37	9.95	8.32	5.90	4.14
Unplanned unavailable hours	0	0	0	0.03	0	0	0	0
Fault exposure hours	0	0	0	0	0	0	0	0
Effective Reset hours	0	0	0	0	0	0	0	0
Required hours	2183.00	2208.00	2209.00	2091.40	2183.00	2208.00	2209.00	2160.00
Indicator value	0.5%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%

Licensee Comments:

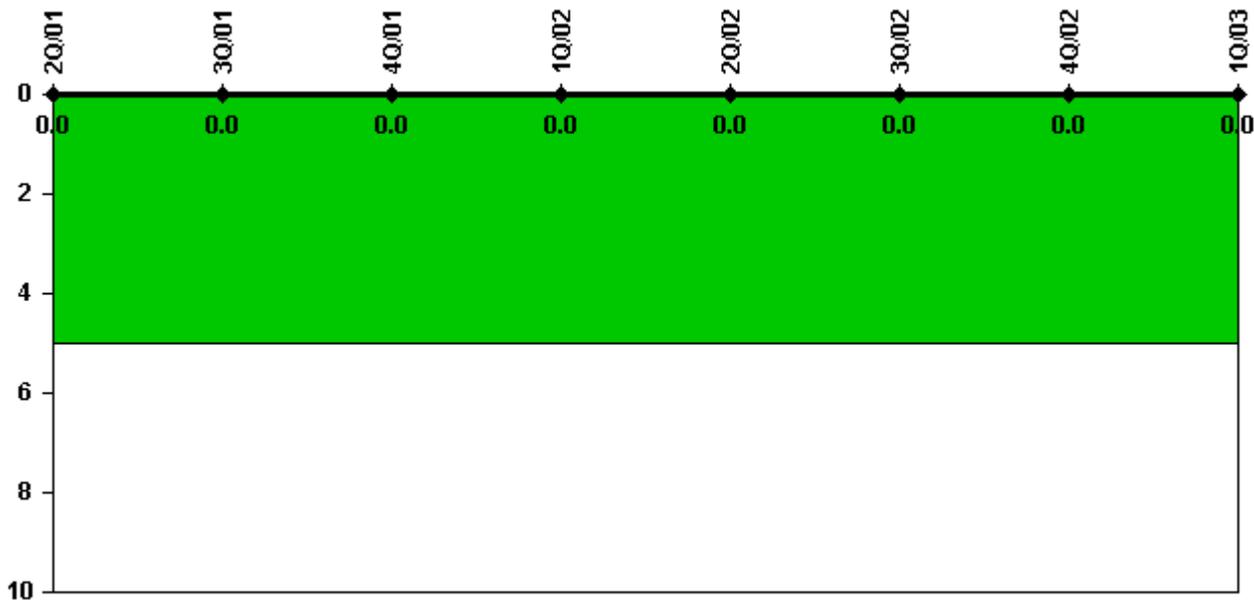
3Q/02: This change is for Q3 CY 2002 Additional hours added due to safety system actuation testing (additional 1.58 hrs for Train 1 and 3.05 hrs for Train B). PER 02-17854 This change does not affect the indicator color.

2Q/02: This change is for Q2 CY 2002. Additional hours added due to safety system actuation testing (additional 8.47 hrs for Train 1) PER 02-17854 This change does not affect the color of the indicator.

1Q/02: This change is for Q1 CY 2002. Additional hours added due to safety system actuation testing (additional 3.05 hrs for train 1 and 1.75 hrs for train B) PER 02-17854. This change does not affect the indicator color

4Q/01: This change is for Q4 CY 2001. Additional hours added due to safety system actuation testing (additional 3.65 hrs for Train1 and 1.73 hrs for Train2) PER 02-17854 This changes does not change the indicator color.

### Safety System Functional Failures (PWR)



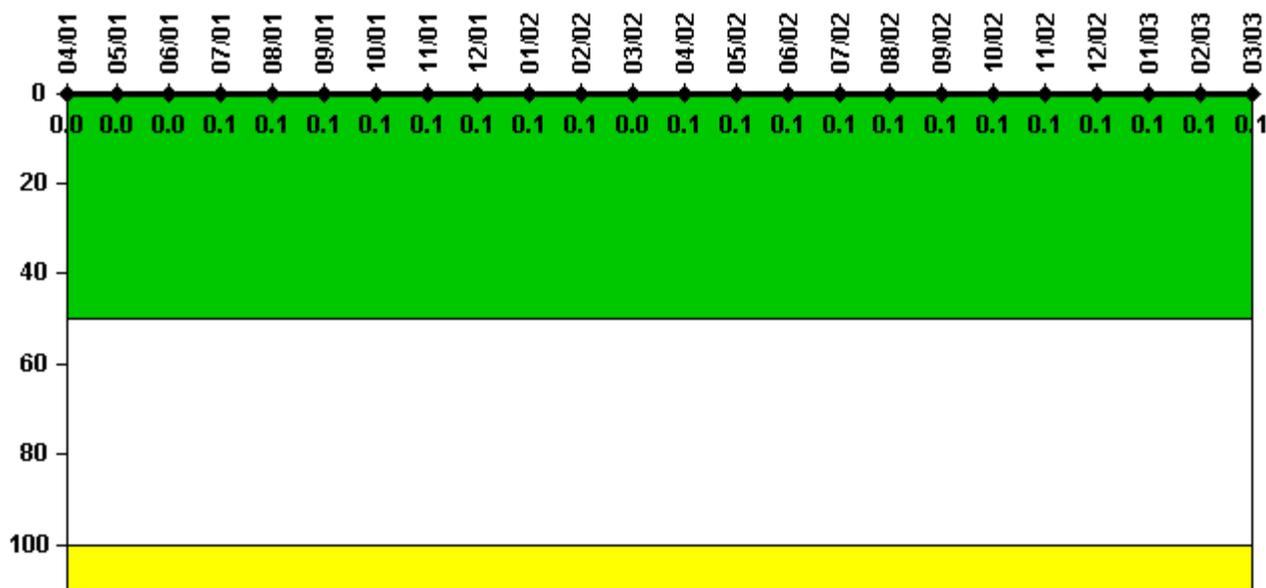
Thresholds: White > 5.0

#### Notes

Safety System Functional Failures (PWR)	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Safety System Functional Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### Reactor Coolant System Activity



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

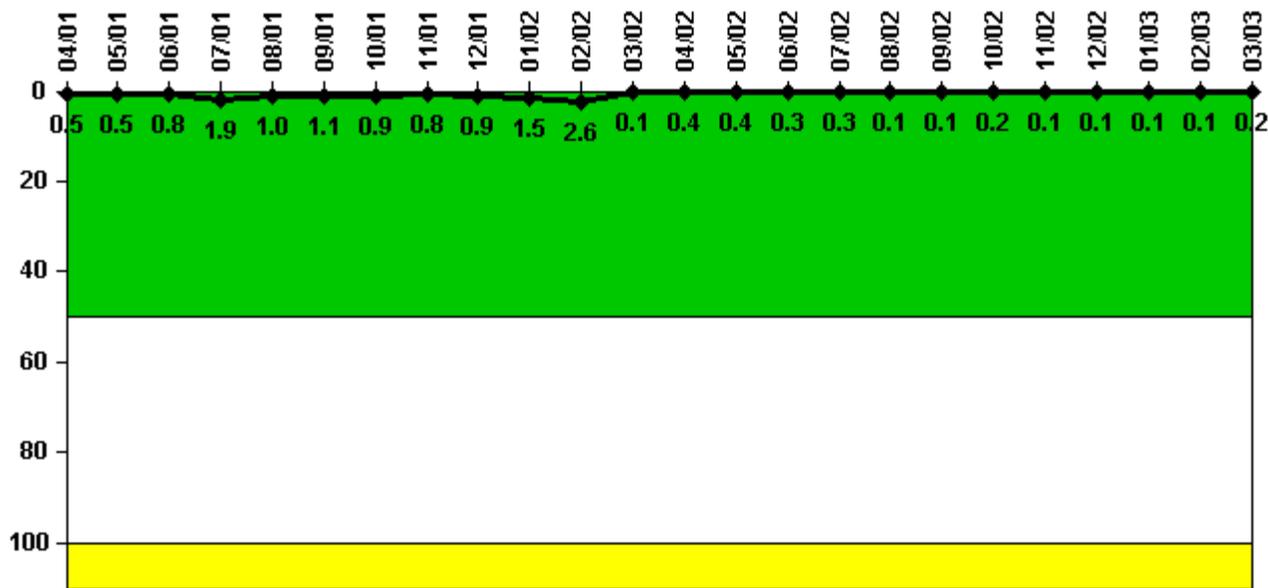
Reactor Coolant System Activity	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02
Maximum activity	0.000250	0.000250	0.000274	0.000267	0.000282	0.000281	0.000297	0.000301	0.000291	0.000310	0.000367	0.000081
Technical specification limit	1.0	1.0	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0

Reactor Coolant System Activity	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum activity	0.000150	0.000134	0.000135	0.000148	0.000149	0.000150	0.000151	0.000156	0.000163	0.000162	0.000193	0.000166
Technical specification limit	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Indicator value	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Licensee Comments: none

### Reactor Coolant System Leakage



Thresholds: White > 50.0 Yellow > 100.0

#### Notes

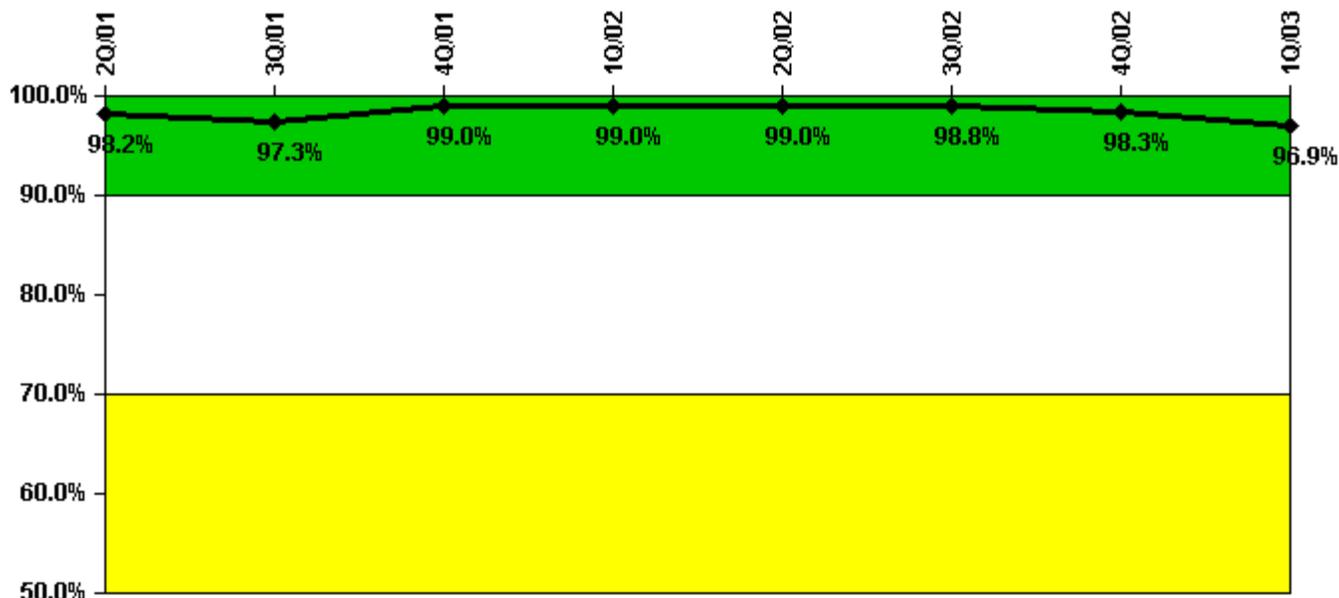
Reactor Coolant System Leakage	4/01	5/01	6/01	7/01	8/01	9/01	10/01	11/01	12/01	1/02	2/02	3/02
Maximum leakage	0.050	0.050	0.080	0.190	0.100	0.110	0.090	0.080	0.090	0.150	0.260	0.010
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.5	0.5	0.8	1.9	1.0	1.1	0.9	0.8	0.9	1.5	2.6	0.1

Reactor Coolant System Leakage	4/02	5/02	6/02	7/02	8/02	9/02	10/02	11/02	12/02	1/03	2/03	3/03
Maximum leakage	0.040	0.040	0.030	0.030	0.010	0.010	0.020	0.010	0.010	0.010	0.010	0.020
Technical specification limit	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Indicator value	0.4	0.4	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2

Licensee Comments: none

### Drill/Exercise Performance



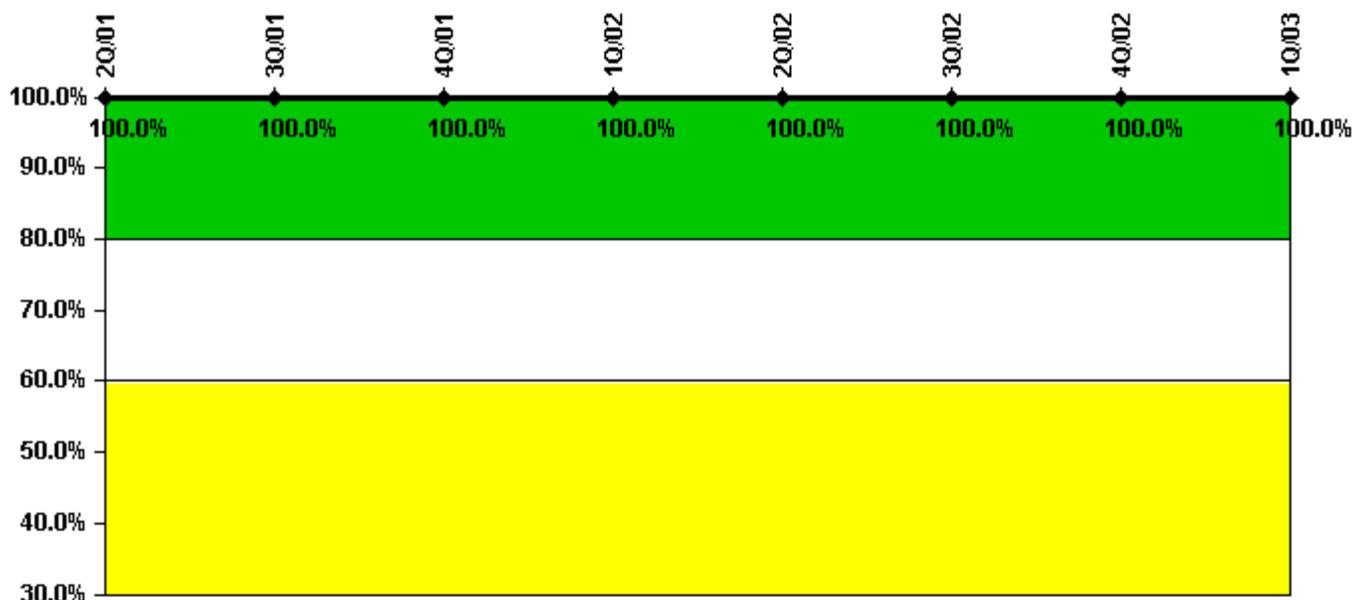
Thresholds: White < 90.0% Yellow < 70.0%

#### Notes

Drill/Exercise Performance	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Successful opportunities	0	8.0	49.0	0	6.0	8.0	45.0	8.0
Total opportunities	0	8.0	50.0	0	6.0	8.0	46.0	10.0
Indicator value	98.2%	97.3%	99.0%	99.0%	99.0%	98.8%	98.3%	96.9%

Licensee Comments: none

### ERO Drill Participation



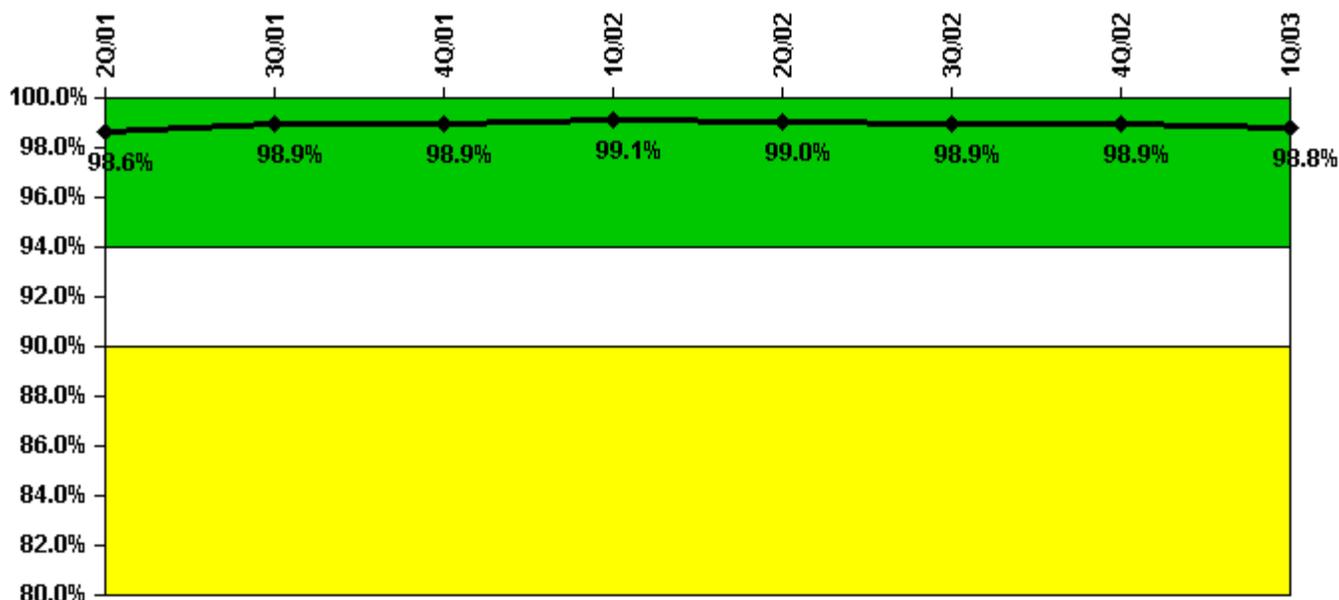
Thresholds: White < 80.0% Yellow < 60.0%

#### Notes

ERO Drill Participation	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Participating Key personnel	48.0	47.0	50.0	50.0	54.0	54.0	56.0	56.0
Total Key personnel	48.0	47.0	50.0	50.0	54.0	54.0	56.0	56.0
Indicator value	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Licensee Comments: none

### Alert & Notification System



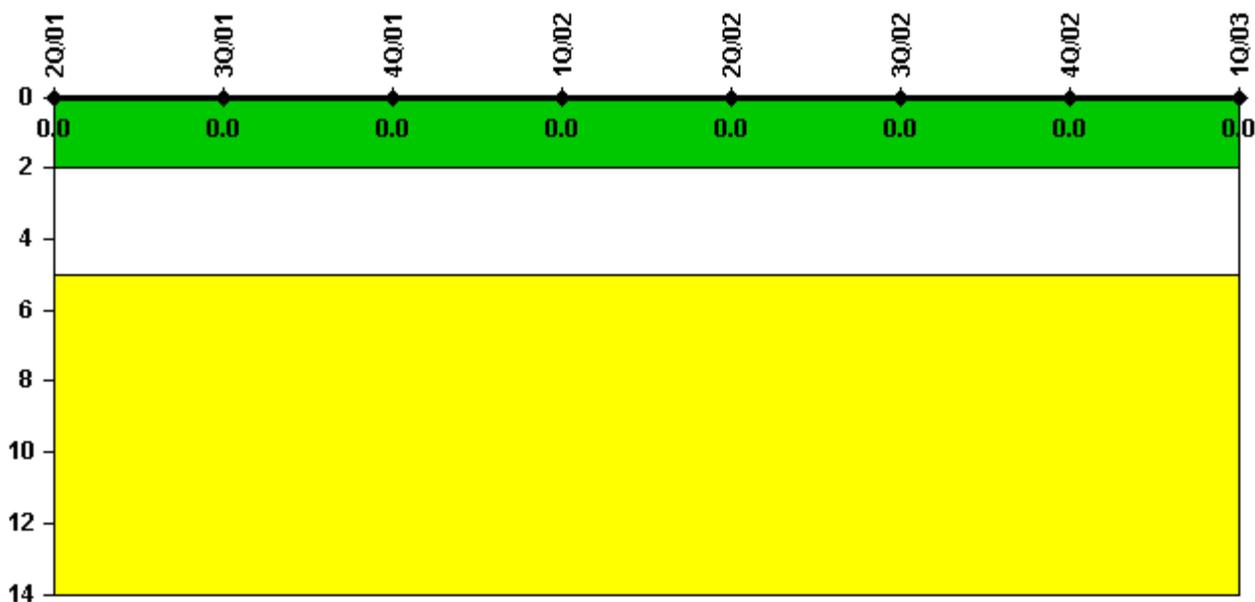
Thresholds: White < 94.0% Yellow < 90.0%

#### Notes

Alert & Notification System	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Successful siren-tests	782	886	882	688	777	785	882	686
Total sirens-tests	792	891	891	693	792	792	891	693
Indicator value	98.6%	98.9%	98.9%	99.1%	99.0%	98.9%	98.9%	98.8%

Licensee Comments: none

### Occupational Exposure Control Effectiveness



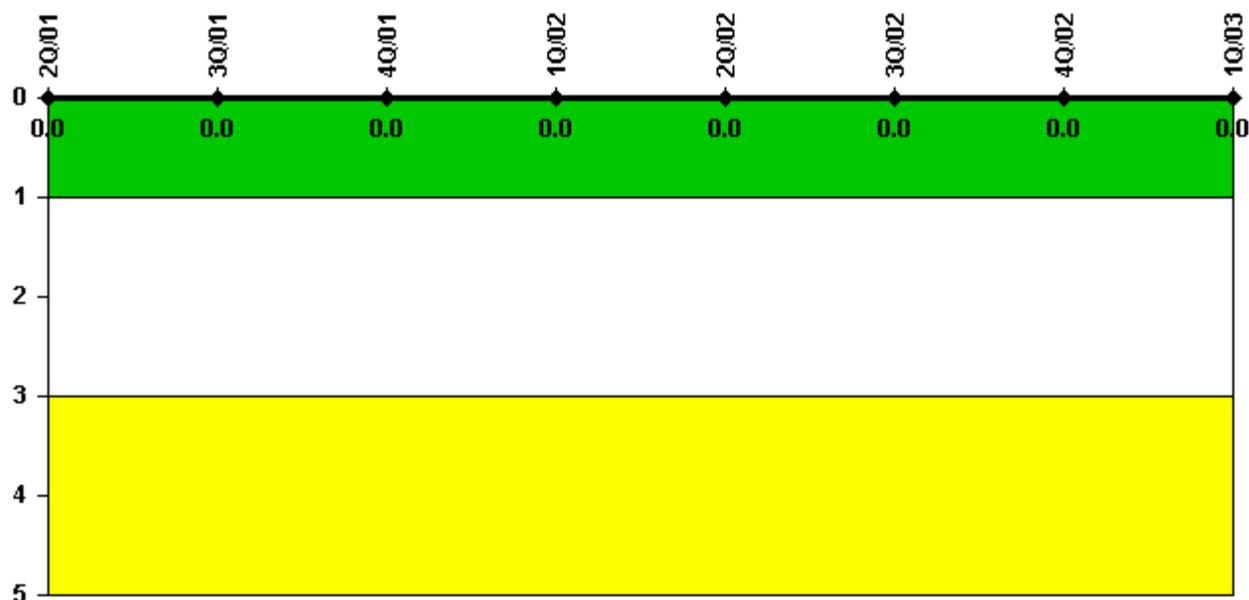
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Occupational Exposure Control Effectiveness	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
High radiation area occurrences	0	0	0	0	0	0	0	0
Very high radiation area occurrences	0	0	0	0	0	0	0	0
Unintended exposure occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### RETS/ODCM Radiological Effluent



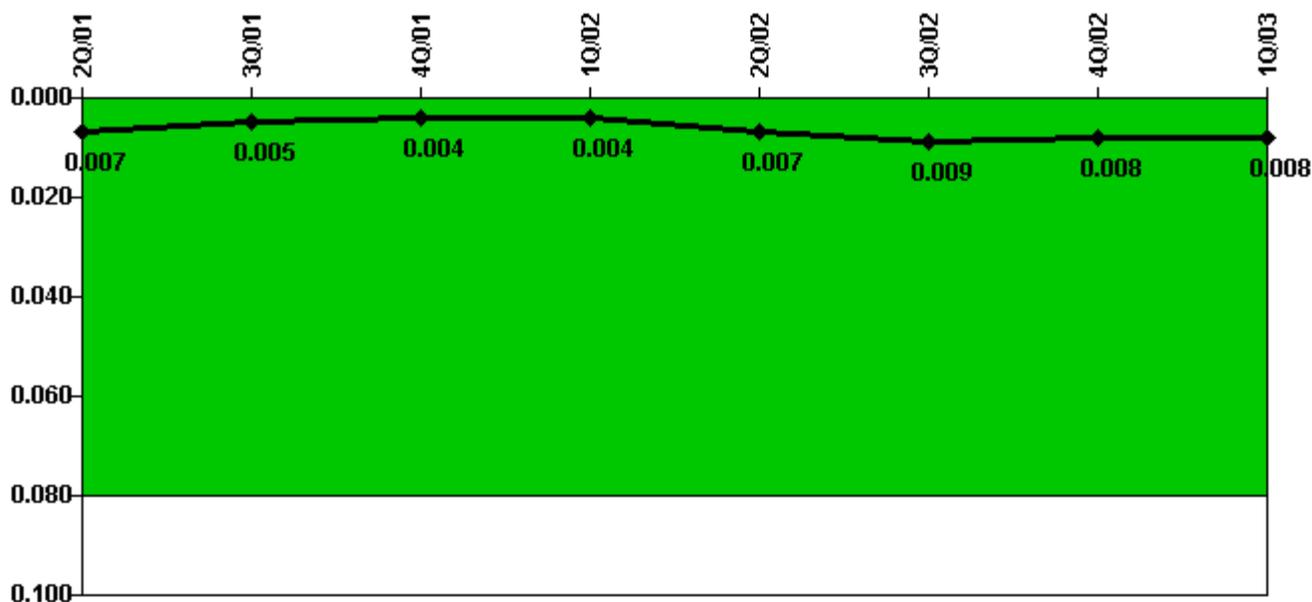
Thresholds: White > 1.0 Yellow > 3.0

#### Notes

RETS/ODCM Radiological Effluent	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
RETS/ODCM occurrences	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

### Protected Area Security Performance Index



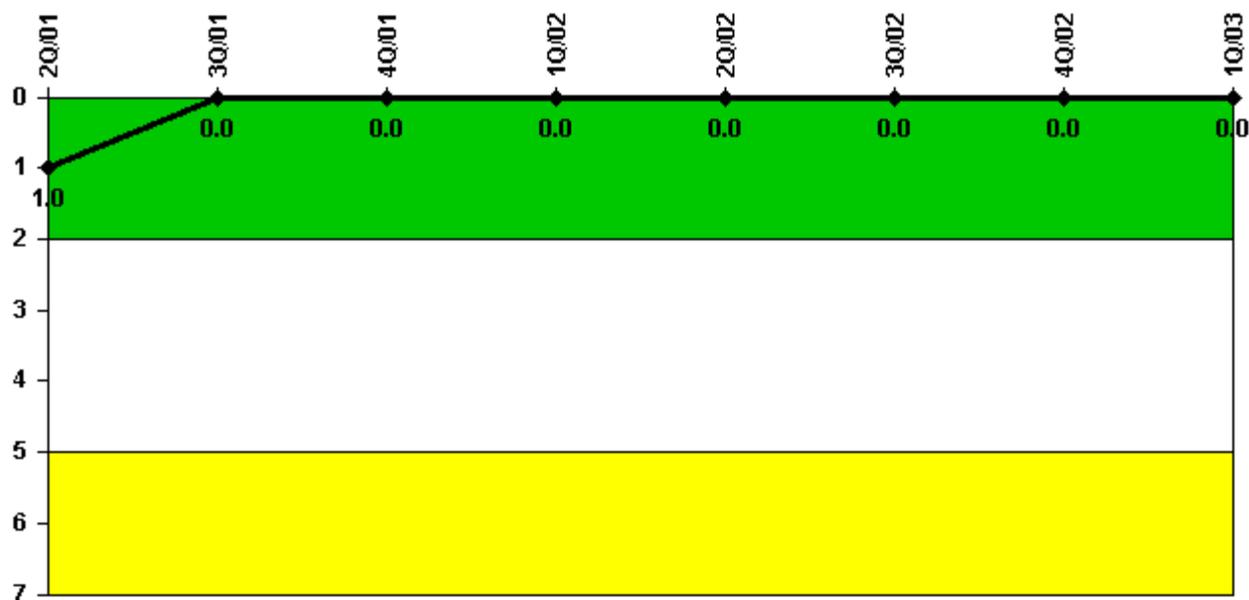
Thresholds: White > 0.080

#### Notes

Protected Area Security Performance Index	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
IDS compensatory hours	81.30	21.00	22.90	11.10	46.70	62.30	14.10	40.10
CCTV compensatory hours	2.6	1.6	6.2	23.8	151.7	6.4	0.4	10.0
IDS normalization factor	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
CCTV normalization factor	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Index Value	0.007	0.005	0.004	0.004	0.007	0.009	0.008	0.008

Licensee Comments: none

### Personnel Screening Program



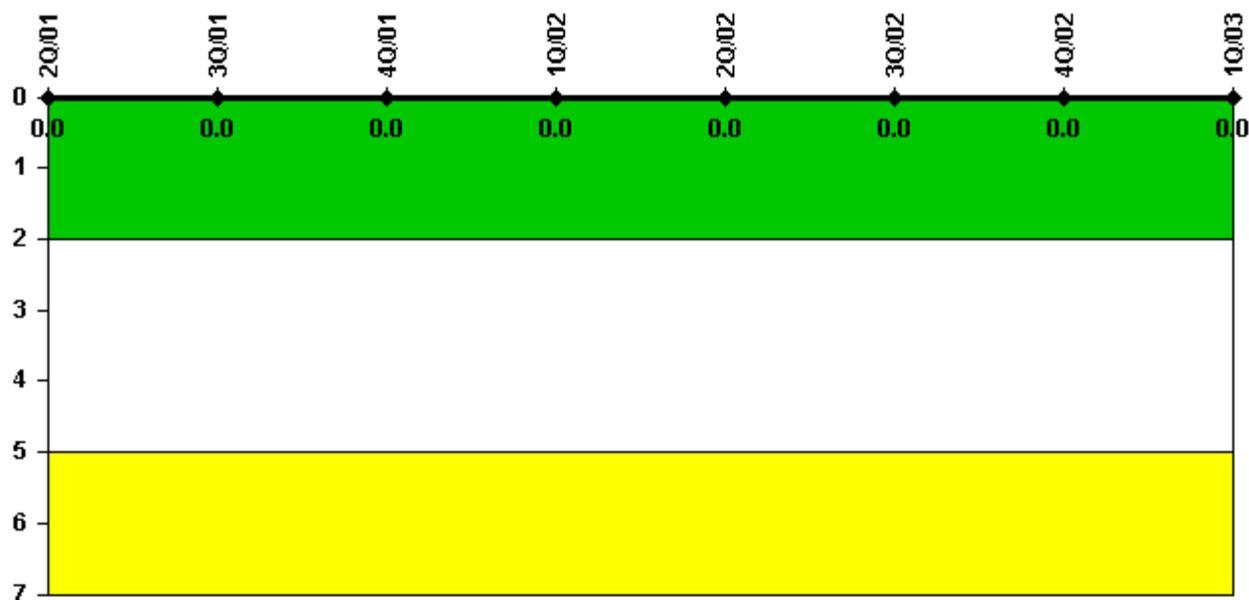
Thresholds: White > 2.0 Yellow > 5.0

#### Notes

Personnel Screening Program	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Program failures	0	0	0	0	0	0	0	0
Indicator value	1	0	0	0	0	0	0	0

Licensee Comments: none

### FFD/Personnel Reliability



Thresholds: White > 2.0 Yellow > 5.0

#### Notes

FFD/Personnel Reliability	2Q/01	3Q/01	4Q/01	1Q/02	2Q/02	3Q/02	4Q/02	1Q/03
Program Failures	0	0	0	0	0	0	0	0
Indicator value	0	0	0	0	0	0	0	0

Licensee Comments: none

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Last Modified: April 22, 2003